

PRESENTED AT THE PARAPSYCHOLOGY ASSOCIATION MEETING

DURHAM, NORTH CAROLINA

September, 1971

LEARNING CLAIRVOYANCE AND PRECOGNITION WITH AN

EXTRA SENSORY PERCEPTION TEACHING MACHINE

LEARNING CLAIRVOYANCE AND PRECOGNITION WITH AN
EXTRA SENSORY PERCEPTION TEACHING MACHINE

by

Russell Targ and David B. Hurt

ABSTRACT

Feedback reinforcement techniques have been used to teach extra sensory perception. A machine which randomly selects among four targets, provides immediate feedback indicating correctness of subject's determination of the machine chosen target. The machine can make its choice either before or after the subject has made his determination, with learning observed to take place in both cases.

The research reported here demonstrates the feasibility of increasing extra sensory perception (ESP) by means of an ESP teaching machine. At the present time, there is substantial literature describing carefully conducted experiments to demonstrate the existence of ESP.¹⁻³ It is not our purpose to add another demonstration of the statistical appearance of ESP, but rather to demonstrate that learning has taken place.

The teaching machine used in this work was designed with the goal of enhancing the ESP ability which we believe to be a latent capacity to some extent in all people.⁴ The enhancement is accomplished by allowing the user of the machine to become aware of his own mental state at those times when he is most successfully employing his extra sensory faculties. With increased conscious awareness of this unique mental state, he is then able to bring his otherwise intermittent faculties under his volitional control.

The teaching machine we used to accomplish this, automatically generates random targets for the user to choose. These targets are generated by the machine and are not presented to the user until he has indicated to the machine what he believes the target to be. The targets are 35 mm color transparencies and the user's task is to select the one the machine has chosen by means of its random target generator.

An important feature of the machine is that the choice per se of a target is not forced. That is, the subject may press a PASS button on the machine when he does not believe he knows the correct choice and wishes not to guess. Thus, with practice the user can learn to recognize those unique states of mind in which he can correctly choose the target. He does not have to guess at targets when he truly does not feel that he "knows" which to choose.

When the PASS button is pushed the machine indicates what its choice was, and neither a hit nor a trial is scored by the machine which then goes on to make its next selection. We consider this elimination of forced choice to be a significant condition for learning ESP.

When the user of the machine indicates his choice to the machine, he is immediately and automatically informed of the correct answer. The machine described here is being used to enhance clairvoyant perception in which experimenter and the subject remain ignorant of the machine's state until the subject has made his choice.

Because the user obtains immediate information feedback as to the correct answer, he is able to determine his mental state at those times when he has made a correct response. If the information feedback to the user were not immediate, we believe learning would not take place and enhancement would not be achieved. The machine used in this work is shown in Figure 1.

The machine has the following general properties:

It generates random targets automatically and rapidly, with the rate determined by the user. It automatically records and scores both the user's responses and the targets generated. The machine provides no sensory cue to the user as to its internal state, and its randomness has been carefully investigated.⁽⁵⁾ The machine has four stable internal states. A 1.0 MHz square-wave oscillator sends pulses to an electronic counter that counts from "one" to "four." On the fifth pulse, the counter returns to "one." This is called a "scale of four counter." The machine therefore passes through each of its four states at a rate of 250,000 times per second. The state in which the scale of four counter resides is

determined by the length of time the 1 MHz oscillator runs. Once the machine is in a fixed state (not scaling), the user may indicate his choice as to which state he thinks the machine is in. He does this by pressing a button on the machine under the color slide of his choice. The correct slide will then light up. The correct answer for the next choice is determined by the length of time the choice button was held down in making the selection. Since the scaling rate is 250 kHz, there is no way for the user to control the final state of the machine since his reaction time is four orders of magnitude too slow for this. In addition to the reward of having pushed the button under the slide which lights, a bell rings to indicate that a correct choice was made.

In the course of this work we have encountered three general classes of subjects. The majority of subjects working with the machine did not show any significant improvement in their ESP ability. One third of the subjects gave evidence for increased ESP by guessing at targets in a manner to cause their scores to become bi-modal. Whereas chance scores should give a skewed binominal distribution, with the probability of a "hit" at each trial equal to $1/4$, we observe that several subjects show an increasing deviation from this distribution. That is, they generate a disproportionate number of high and low scores. This phenomena is well known in ESP literature and is known as "psi missing."⁽⁶⁾ It is common for a high scoring subject to follow a particularly high score such as 12 out of 24, with a particularly low score such as 2 out of 24. We take this increase in bi-modal performance as an indication of ESP although it is not an effect which we set out to cultivate.

In the group showing improvement, one subject has shown an exceptional increase in ESP scores through more than 1600 trials. This subject has learned to clairvoyantly perceive the state of the machine to an extent providing a significant deviation from chance expectation.

The protocol for the experiment was for the subject to make four runs of 24 trials, ($P = 1/4$). This was followed by a rest period, and four more runs of 24.

The successful subject in this experiment reached a scoring level where on several occasions she scored more than 40 hits out of 96 trials in one of these sets of four runs, where only 24 hits would be expected. From the null hypotheses, the probability of 40 hits out of 96 trials is less than 10^{-3} , ($CR = 3.1$). This subject made a total of 64 runs of 24 trials with a mean score of 8.6 hits per run. ($CR = 8$, P for the whole series $< 10^{-15}$)

Based on the outcome of this work, we sought to determine if other phenomena in the ESP realm could be similarly enhanced.

The machine was altered so that the target was not chosen by the machine until after the subject indicated his choice. The time delay was approximately 0.2 seconds, which is to say that subjects were asked to make a perception of an event which was to occur 0.2 seconds in the future.

The single subject, graduated to the precognitive experiment reported at the beginning of her first run, "I don't feel anything anymore," about which picture would light, and moreover that she was "just guessing." This was borne out in her early scores in the precognition experiment. However, in the course of 672 trials, her performance increased to a level

Targ, (7)

approaching her scores in the clairvoyant tests; e.g., she got 19 hits out of her first 96 trials and 38 hits out of her last 96 trials. The results of the 28 precognitive runs of 24 trials each were subjected to a linear regression analysis, shown in Figure 2, which gave a best fit to a line with positive slope 0.14 per run, and a Y intercept at 5.0 hits in the first run. The correlation coefficient was 0.68. This is a clear indication that learning has taken place. ($P < .01$)

We conclude from this work that it is possible to teach and enhance ESP phenomena through techniques of feedback and reward in much the same way as visceral and glandular functions are brought under volitional control.⁽⁷⁾ Additional experiments will shortly be undertaken to find the relationship between accuracy of precognition and the temporal distance from the event.⁽⁸⁾ Our overall goal is to achieve an understanding of the functional relationship of ESP to the various physical and psychological variables which control it.

1 August, 1971

Russell Targ
David B. Hurt
Parapsychology Research Group Inc.
1087 Fife Avenue
Palo Alto, California 94301

REFERENCES

1. J. Pratt, J. B. Rhine, C. Stuart and J. Greenwood, Extra Sensory Perception After Sixty Years, New York, Henry Holt, 1940.
2. S. Soal and F. Bateman, Modern Experiments in Telepathy, London, Faber and Faber, 1954.
3. L. L. Vasilliev, Experiments in Mental Suggestion, Hampshire, England, ISMI Publications, 1963.
4. C. Tart, J. American Soc. Psychology Res., 60, 46, (1966).
5. The distribution of targets with regard to singles, doubles and triples was analyzed for 2400 trials, and was found to lie within one standard deviation of the expected value.
6. J. B. Rhine, J. Parapsychology, 33, 1, (1969).
7. N. E. Miller, Science, 163, 434, (1969).
8. We hypothesize that significant events create a perturbation in the space-time in which they occur, and that this disturbance propagates forward, and to small degree, backward in time. Since precognitive phenomena are quite rare, the disturbance evidently dies out extremely rapidly in the $-t$ direction.
9. This work was supported by a grant from the Parapsychology Foundation.

FIGURE CAPTIONS

1. ESP Teaching Machine Used in this Experiment, indicating 10 correct responses and 2 of the 4 "encouragement lights" illuminated.
2. Precognition Experiment; showing number of hits/run of 96 trials vs. trial number. Linear regression analysis of the data is also shown. Correlation coefficient = 0.68, $P < 0.01$.



